

Comparisons of Job Characteristics

Focus Occupation: [Architectural and Engineering Managers \(11-9041\)](#)

Associated Occupation: [Marine Engineers and Naval Architects \(17-2121\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 93

Focus Occupation: Architectural and Engineering Managers (11-9041)
Associated Occupation: Marine Engineers and Naval Architects (17-2121)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Engineering and Technology	5.7	21.2	23.2	0 Current knowledge level may be sufficient
Design	5.2	17.6	19.0	0 Current knowledge level may be sufficient
Mathematics	9.2	15.8	17.4	> Current knowledge level is likely sufficient
Mechanical	6.8	14.9	10.4	<< Extensive education and/or training may be required
Computers and Electronics	8.4	14.4	16.9	> Current knowledge level is likely sufficient
Physics	4.3	13.5	13.0	0 Current knowledge level may be sufficient
Production and Processing	6.0	11.1	10.7	0 Current knowledge level may be sufficient
Building and Construction	4.0	10.6	10.7	0 Current knowledge level may be sufficient
Transportation	4.6	8.4	5.3	<< Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 84

Focus Occupation: Architectural and Engineering Managers (11-9041)
Associated Occupation: Marine Engineers and Naval Architects (17-2121)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Operations Analysis	5.0	13.8	13.9	0 Current skill level may be sufficient
Judgment and Decision Making	9.4	13.5	12.5	0 Current skill level may be sufficient
Mathematics	6.2	13.5	11.7	< A higher skill level may be required
Complex Problem Solving	9.1	12.8	13.0	0 Current skill level may be sufficient
Science	4.5	11.2	8.7	< A higher skill level may be required

Systems Analysis	6.5	10.7	10.7	0	Current skill level may be sufficient
Technology Design	2.6	8.1	3.3	<<	Extensive development of skills in this area may be required
Management of Material Resources	3.7	7.7	9.2	>	Skill level is likely sufficient
Management of Financial Resources	3.3	7.6	9.7	>	Skill level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 96			
Focus Occupation: Architectural and Engineering Managers (11-9041) Associated Occupation: Marine Engineers and Naval Architects (17-2121)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Written Comprehension	11.0	16.4	15.2	0	Current ability level may be sufficient
Oral Comprehension	12.5	16.0	15.0	0	Current ability level may be sufficient
Deductive Reasoning	10.6	15.6	13.9	<	Some improvement in abilities may be required
Information Ordering	9.9	14.7	12.0	<	Some improvement in abilities may be required
Problem Sensitivity	11.1	14.4	13.9	0	Current ability level may be sufficient
Inductive Reasoning	10.2	14.3	12.5	<	Some improvement in abilities may be required
Mathematical Reasoning	6.3	13.6	13.3	0	Current ability level may be sufficient
Visualization	7.5	13.6	10.1	<<	Extensive improvement in abilities may be required
Number Facility	6.3	12.6	11.2	<	Some improvement in abilities may be required
Originality	7.6	11.8	10.5	<	Some improvement in abilities may be required
Fluency of Ideas	7.6	11.5	10.1	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 84
Focus Occupation: Architectural and Engineering Managers (11-9041) Associated Occupation: Marine Engineers and Naval Architects (17-2121)		
Work Activities	Exclusivity of Activity	
Advise clients or customers	19	
Advise clients regarding engineering problems	67	
Analyze project proposal to determine feasibility, cost, or time	69	

Assign work to staff or employees	30
Communicate technical information	4
Confer with engineering, technical or manufacturing personnel	25
Coordinate engineering project activities	71
Delegate authority for engineering activities	73
Develop policies, procedures, methods, or standards	21
Direct and coordinate activities of workers or staff	3
Direct personnel in support of engineering activities	74
Estimate cost for engineering projects	69
Estimate time needed for project	64
Evaluate costs of engineering projects	70
Evaluate engineering data	60
Lead teams in engineering projects	73
Plan testing of engineering methods	72
Prepare reports	8
Prepare technical reports or related documentation	22
Read blueprints	10
Read technical drawings	7
Resolve engineering or science problems	46
Supervise engineering managers or staff	99
Understand engineering data or reports	48
Use intuitive judgment for engineering analyses	72
Use project management techniques	47
Use scientific research methodology	21
Use technical regulations for engineering problems	61
Write business project or bid proposals	48

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 85

Focus Occupation: Architectural and Engineering Managers (11-9041)
Associated Occupation: Marine Engineers and Naval Architects (17-2121)

Tools and Technologies	Exclusivity
Business function specific software	1
Computers	1
Content authoring and editing software	1
Content management software	6
Data management and query software	1
Finance accounting and enterprise resource planning ERP software	2
Industry specific software	1
Information exchange software	1
Vision protection and accessories	3

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.